SUPPLY CHAIN COUNCIL AWARD
FOR
SUPPLY CHAIN MANAGEMENT

Technology Excellence

Architecture Planning and Portfolio Management

2005 Submission

February 15, 2005

SECTION 1

Submitting Organization

United States Marine Corps

Organization

Headquarters, United States Marine Corps, Installations & Logistics Department

Installations & Logistics (I&L) Mission: The I&L Department shapes logistics plans and policies to sustain excellence in Warfighting. The focus of effort is to increase Marine Air-Ground Task Force (MAGTF) lethality by providing superior support through modernizing logistics processes, implementing proven technology and best practices, developing standards of performance, and fully integrating the Marine Corps supporting establishment as the part of the MAGTF.

Award Category

Technology

Supply Chain Span, Applicability and Scope

The focus of the architecture and portfolio initiatives is on supply chain management functions as they apply to MAGTF logistics in an expeditionary environment. The architecture outlines a strategy for end-to-end management and execution of the Marine Corps logistics chain and the portfolio configures the technology environment to support those activities. The Marine Corps has adopted a holistic approach to optimizing the planning, management and execution of its entire logistics and Combat Service Support enterprise.

Supply Chain Partners (external)

Partner	Number of Participants
Pennsylvania State University, Center for Logistics Research, State College, PA	10
Office of the Deputy Under Secretary of Defense for Logistics and Materiel Readiness	8
Center for Naval Analyses (CNA), Alexandria, VA	2
Oracle Corporation	10

Functional Involvement (internal)

Partner	Number of Participants
Headquarters, United States Marine Corps (HQMC)	25
Marine Corps Combat Development Command (MCCDC)	20
Marine Corps Systems Command (MARCORSYSCOM)	10
Operating Forces	75

Partner Points of Contact Information

The Marine Corps' primary points of contact for partner organizations are the following:

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SECTION 2

Background

For years, Marine Corps systems acquisition and development had taken place in a vacuum, with little or no cross-functional coordination and no alignment to defined enterprise business objectives. What had resulted was a patchwork nightmare of technology applications and infrastructure that was ineffective and extremely costly to maintain. To solve this problem, the Marine Corps developed, and is institutionalizing a governance framework that incorporates application rationalization and on-going portfolio monitoring driven by strategy and the needs of the warfighter. This architecture is designed with measures and processes that apply in all situations and with the objective of streamlining the Marine Corps logistics chain so that it can support any unit, anywhere, in any situation. This entailed developing a standard set of metrics and processes and identifying deployable information technology that is pertinent when training or operating anywhere in the world.

The Logistics Modernization program consists of a comprehensive series of groundbreaking initiatives undertaken by the Marine Corps to improve the effectiveness of Marine Air-Ground Task Forces (MAGTFs). The Marine Corps is transforming its logistics enterprise through reengineered business processes, leading-edge technology acquisition and greatly enhanced education and change management programs for Marines. By integrating these improvements in people, process and technology, the Marine Corps will realize quantum advances in the performance of its supply chain and dramatically improve the effectiveness of its forces worldwide.

Project Duration

Enterprise architecture implementation and portfolio management are ongoing initiatives for the Marine Corps. The architecture provides a functional baseline for the Global Combat Support System-Marine Corps (GCSS-MC), the core of the Marine Corps logistics systems portfolio. GCSS-MC will take advantage of off-the-shelf solutions that enable improved logistics chain effectiveness/efficiency and provide timely/actionable combat support information. The architecture also defines the operational capabilities that will drive the requirements for future acquisitions. It defines the operational capabilities against which the Marine Corps will align and rationalize its Information Technology (IT) investments. The portfolio management process is intended to properly align the IT environment with the Marine Corps' operational requirements.

Process

Architecture Planning

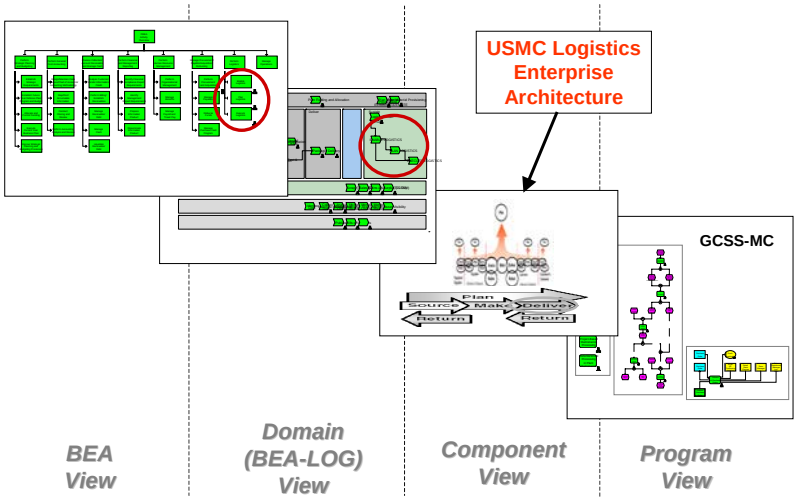
Utilizing the Enterprise Architecture Planning approach, the Marine Corps has developed an enterprise architecture that defines an integrated set of processes, technical requirements and information technology (IT) systems requirements for the entire end-to-end Marine Corps logistics enterprise. The architecture provides a Marine Corps-wide, integrated view of the Logistics Chain focused on fulfillment of the demands for products and services generated by the operating forces. It is based upon standard best practices and performance measures derived from the Supply Chain Operations Reference (SCOR) model and tailored to suit the expeditionary nature of operations across the Marine Corps. Key metrics, developed in conjunction with the architecture, will allow the Marine Corps to measure the benefits of its modernization efforts and make course corrections, as required. The fundamental benefit is the ability to provide focused, responsive support to the MAGTF. Additionally, the architecture will serve as the foundation for Force Capability Development. Future requirements and associated budgets will be evaluated

against the architecture to ensure that they are aligned to enterprise business objectives. The Marine Corps is the first service and Department of Defense (DoD) agency to attempt and complete an enterprise architecture effort of this magnitude.

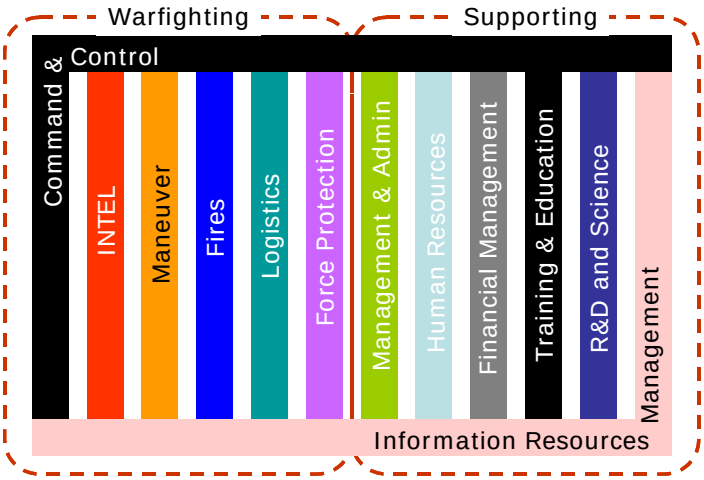
The architecture is the blueprint for modernizing logistics processes and technologies in accordance with strategic objectives and future operational concepts. The architecture enables the Marine Corps to implement a set of measurable cross-functional processes that integrate and optimize the six combat service support (CSS) functions to provide seamless logistical support across the MAGTF.

As architecture development and implementation have matured throughout the Department of Defense (DoD), the Marine Corps has responded to a variety of integration and coordination mandates. The Department has recognized the value of aligning the services and components to its business objectives and has subsequently established architecture standards and compliance criteria to ensure the entire department stays on course. The Corps' primary integration point to the DoD environment is through the Business Enterprise Architecture (BEA). The BEA depicts the DoD enterprise of which Logistics is one domain. The BEA-Log is an extension of the BEA through the Logistics Domain into the Components and establishes the To-Be logistics business environment. The Marine Corps aligns to that business environment by defining its business processes, roles and information requirements in architecture views and processes based on the SCOR model. The systems architecture aligns the USMC logistics systems environment to the Logistics Domain via a direct mapping of business functions to the BEA. The USMC logistics enterprise architecture was formally scored and accepted by the Log Domain of the BEA in May 2004. This acceptance gives the Marine Corps architectural oversight to its internal component program activities and represents the first step toward establishing a Department of Defense-validated functional baseline for portfolio management.

Links to Other Architectures



The logistics enterprise architecture is the logistics functional element of the Marine Corps enterprise architecture. The logistics architecture will help to establish integration across the various functional elements within the Marine Corps by linking to other internal functional architectures as depicted below.



The Marine Corps has established a formal To-Be architecture at the Marine Corps Combat Development Command (MCCDC), which defines the composition, capabilities and roles of a Marine Air-Ground Task Force for the 2015 timeframe. It is an operational view of future Marine Corps expeditionary operations. In December 2004, the logistics operational architecture was incorporated into this view. This important milestone will help to define the institutional changes in Force Capability Development that will need to take place over the next several years – in effect, formalizing logistics transformation throughout the Marine Corps. Inclusion of the logistics architecture into the 2015 plan highlights a continued organizational commitment on the part of the Marine Corps to promote cross-functional integration and coordination in order to provide the best possible support to the MAGTF.

Portfolio Management

Architecture Planning has provided the foundation for Information System Portfolio Management within the Marine Corps. The USMC portfolio of capabilities is directly linked to the functional requirements and discrete performance measures developed within the Marine Corps logistics enterprise architecture. This portfolio management strategy will enable the Marine Corps to retire outdated legacy systems, develop effective resource investment strategies and facilitate rapid implementation of technology, while eliminating duplicative efforts.

Portfolio management provides a standardized and repeatable IT governance process by which the Marine Corps can maximize the value of its IT investments, while minimizing risk. Technology investment decisions can be prioritized based on the overall value to the Marine Corps and its operational requirements. For example, a core criteria for system investment will be how closely a proposed or legacy system meets the Corps' strategic goals and objectives outlined in the enterprise architecture. A sound governance process will help the Marine Corps to detect overlapping efforts, retire or cut systems that provide little or no value to the enterprise, and most importantly, provide the warfighters with the technology they need to execute their mission.

Portfolio Management within the Marine Corps has been an evolutionary process. The Marine Corps began the portfolio process in 2001 with its Systems Realignment and Categorization (SRAC) Initiative. SRAC was a first cut attempt at defining the limits of USMC logistics systems landscape. The SRAC team collected a detailed inventory of logistics systems throughout the enterprise and aligned them to what were then, the functional priorities of the Marine Corps. Once that was completed, the team developed a preliminary retirement plan for the systems that fell outside acceptable parameters of functionality and value. As a result, more than 30 systems that provided little or no value to the enterprise were retired. Since then, the Marine Corps has completed an enterprise architecture. The architecture provides a new functional baseline for logistics and Combat Service Support and defines new operational capabilities and requirements. The Marine Corps has been able to evaluate its entire logistics system legacy environment and near-term systems acquisitions against the new capabilities defined in the architecture. Subsequently, the Marine Corps has been able to properly align more than 250 IT systems to an integrated business model. With its systems properly aligned the Marine Corps built upon the SRAC retirement plan and developed a comprehensive systems migration and evolution strategy. The new migration strategy charts out detailed legacy system migration and retirement schedule and establishes a high-level plan to introduce new capabilities to the portfolio over the next several years. The migration strategy has, in effect, created an acquisition schedule that will coordinate the fielding of new technologies to coincide with the business process improvements that will be introduced across the Marine Corps in the coming years. Implementation of the portfolio plan will properly shape the Marine Corps logistics system landscape to maximize technology support of the logistics chain.

Challenges

Cultural Change

The Marine Corps is a large and extremely successful organization that is steeped in tradition. Generally speaking, those types of organizations are the most resistant to change. To break that paradigm and to support the sweeping changes taking place, the Marine Corps has undertaken an extensive change management effort to promote effective communications, educate Marines and institutionalize the transformation initiatives. The Marine Corps has developed and is in the process of implementing a comprehensive communication plan that is focused on disseminating pertinent program information to appropriate audiences throughout the Marine Corps, DoD and industry. The plan consists of wide–ranging communications and media activities, reinforced by updated training curriculums designed to pave the way for Logistics Modernization and GCSS-MC. A professional communications management team has been established to guide this effort. The Marine Corps is also formalizing change through its Expeditionary Force Development System (EFDS) at MCCDC. This process will ultimately institutionalize Logistics Modernization into Marine Corps doctrine, policy, organization and schools.

Metrics

The architecture and its supporting portfolio define end-to-end processes and supporting enablers developed from industry best practices for the execution of logistics chain activities. However, implementation of the processes cannot be optimized without metrics. They are the criteria for measuring the performance of the logistics chain. The metrics used by the Marine Corps are derived from the operational views of the architecture and are incorporated into the systems portfolio environment as information requirements for tools to provide control and reporting for the USMC Logistics Enterprise.

Cost and Performance Benefits

The overall success of Logistics Modernization will not be measured in dollars and cents but rather in the operational effectiveness of deployed MAGTFs and the Marine Corps' ability to support them in an expeditionary environment. However, the implementation of end-to-end logistics chain planning, management and execution, and the integration of supporting technology enablers will position the Marine Corps to realize significant savings and maximize its limited resources. Through the fielding of the first phase of GCSS-MC alone, the Marine Corps expects to receive a return on investment ranging from $42-282 million. Furthermore, proper portfolio planning and implementation will result in reducing costly and outdated legacy systems and maximize future IT investments. The goal of the Marine Corps is to field capabilities that will dramatically improve operational readiness.

Customer Value

The Marine Corps has created a true customer-focused environment within the MAGTF. The new processes and technology will provide Marines with a single, standardized interface for all logistics products and services. This frees operational units to focus on their primary responsibility of training Marines, and planning and executing wartime missions. Marines will benefit from a simplified interface to the support infrastructure, greater visibility of the logistics pipeline and improved readiness from a more effectively managed logistics chain.

Strategic Effect

The dynamic nature of today's extended battlefields creates logistics chain challenges never before encountered by the Marine Corps. To keep pace with modern expeditionary operations and emerging threats to national security, the Marine Corps has redefined its logistics business enterprise by developing an enterprise architecture and a supporting systems portfolio. Effective portfolio management has created a coordinated approach to the stewardship of the Marine Corps' full range of technology investments and it provides a tremendous opportunity for resource optimization in a resource-constrained environment. Portfolio implementation will integrate logistics processes and information across the Marine Corps and throughout the Department of Defense to maximize inter-service communications and joint warfighting capabilities.

Effective portfolio management is a coordinated approach to the stewardship of an organization's full range of technology investments. Enabling the logistics chain with modern commercial technology will provide superior information resources.

SECTION 3

Knowledge Transfer

Implementation of the architecture and the portfolio process will also have a significant impact on the nature and composition of the Marine Corps. Implementation of the architecture, as well as the three other Logistics Modernization initiatives: material readiness process improvement, Force Service Support Group renaming/restructuring, and logistics bandwidth/command and control/intelligence improvements will enable the institutionalization of the systems and processes in the Marine Corps as a whole. This will make the science of logistics integral to tactics, techniques and procedures. To facilitate this process, the Marine Corps has established the first ever full time Logistics Modernization Transition Task Force to usher modernization initiatives through the EFDS. The Task Force will work through the EFDS analysis to develop Marine Corps warfighting concepts and to determine associated required capabilities in the areas of doctrine, organization, training and education, equipment, and support facilities to enable the Marine Corps to field combat-ready forces. The EFDS process provides a formal, cross-functional methodology for implementing lasting change and evaluating capabilities requirements for the MAGTF.

In addition to the EFDS work, the Marine Corps has assembled three teams of tactical (field level) representatives whose primary responsibility is to lay the foundation for process transformation at the grass roots. These Logistics Modernization Teams (LMT) are comprised of supply chain experts who interact with the operating forces on a daily basis to educate Marines and implement change. This team structure has existed for quite some time in the Marine Corps. Their previous mission, however, centered on the enforcement of increasingly obsolete policy and compliance issues. The relevance of the teams had diminished recently, as the Marine Corps moved away from the disjointed, stove-piped functional processes that drove the outdated policies. Rather than allow a potential resource go to waste, the Marine Corps refocused their efforts on preparing the “customers” for the imminent supply chain and technology transformations that will be driven by the implementation of the architecture and the maturation of the logistics systems portfolio. Ultimately, these teams will provide the hands-on training for all modernization initiatives and for GCSS-MC. They will act as permanent liaisons between the policy and vision personnel at Headquarters, United States Marine Corps and the supply chain executors and customers in the Fleet Marine Forces.

Change management has become the centerpiece of all logistics modernization initiatives with the Marine Corps, particularly architecture planning and portfolio management. These concepts represent a complete departure from the traditional order of business within the Marine Corps and, as such, require a great deal of supporting communication and education. Educating personnel on the fundamentals of initiatives is essential not only for preparation and training but also for passing along lessons learned – helping to transform the Marine Corps culture itself. The scope of Marine Corps change management underscores a sustained commitment to making the changes necessary to ensure that the Marine Corps provides the best logistics support possible to its expeditionary operating forces.